

## REMARKS

Claims 18-20 and 23-39 are pending in this application. Claims 32-39 have been added. Non-elected claims 21 and 22 have been cancelled without prejudice to their reintroduction herein or in a future continuation or divisional application.

Claims 18-20 and 25-28 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,766,774 to Lynch.

Applicant respectfully traverses this rejection.

Independent claim 18 and new independent claim 33 respectively recite that at least one and both of the door skins has/have a bond strength of at least about  $2.0 \text{ N/mm}^2$ . In order to understand the significance of this feature, it is helpful to first understand the inventive process which allows for the claimed bond strength to be achieved.

Applicant's process starts with the selection of a solid wood composite flat blank that has already been pressed into its flat-skin shape. In this regard, Applicant's process differs from conventional processes, in which molded door skins are formed from non-solid mats or bats of material. The mat of these conventional processes can be formed of either dry or wet fibers. Conventional processes follow either of two approaches. Either the mat is pressed between contoured molds to form skins having features conforming to the contours of the mold, or the mat is pressed flat to form a flush door skin.

As detailed in the specification, attempts have been made to transform flush skins into molded door skins in an effort to reduce costs. However, such prior efforts have not resulted in a commercially successful product, principally because of unsatisfactory skin surface appearances.

Applicant has discovered that by taking the solid wood composite door blank which has already been compressed from its thick, loose, moisture-containing state and subjecting the blank to a series of steps, a door skin with a bonding strength of 2.0 N/mm<sup>2</sup> or higher can be attained. These steps may include the pre-heating, moisturizing, conditioning, and reforming of the blank into a shaped molded door skin having multiple panels.

The specification states at page 6, lines 14-21 that the resultant bond strength of the reformed molded skin is significantly greater than, and often double, the internal bond of the conventional solid wood composite door blank prepared by a conventional process. Standard molded door skins made by conventional processes have a bond strength of about 1.4 N/mm<sup>2</sup>, whereas the claimed door skins have a bond strength of at least about 2.0 N/mm<sup>2</sup>, and in some embodiments at least about 2.5 N/mm<sup>2</sup>.

Lynch does not teach a molded door skin having a bond strength of a least about 2.0 N/mm<sup>2</sup>. The Examiner acknowledges as much, but contends that the claimed bond strength would have been an obvious design choice.

Applicant respectfully submits that the bond strength limitation recited in the independent claims cannot be dismissed as merely being a matter of "obvious design choice," based solely on the examiner's bald assertion that such is the case. To the contrary, in a proper obviousness determination, the examiner is required to consider the totality of the record, including all evidence and arguments presented by Applicant, and to evaluate even minor changes in terms of the invention as a whole and in the context of whether the prior art provides any teaching or suggestion to one of ordinary skill in the art to have made the changes that would produce appellants' claimed invention. *See, e.g.,*

*In re Chu*, 66 F.3d 292, 298-99, 36 USPQ2d 1089, 1094-95 (Fed. Cir. 1995) and *In re Gal*, 980 F.2d 717, 719, 25 USPQ2d 1076, 1078 (Fed. Cir. 1992).

A design choice, even a simple design choice, is not obvious unless there is motivation or reason for the artisan of ordinary skill to make the necessary changes to the reference device. *See, e.g., parte Chicago Rawhide Mfg. Co.*, 223 USPQ 351, 353 (Bd. Pat. App. & Inter. 1984) (“The prior art must provide a motivation or reason for the worker in the art, without the benefit of appellant’s specification, to make the necessary changes in the reference”).

Applicant respectfully submits that the claimed bond strength is not suggested by the prior art, and therefore is not an obvious design choice.

There is no teaching or suggestion in the prior art that would lead one of ordinary skill in the art to modify the door skin of the Lynch patent to increase the bond strength to the claimed range of 2.0 N/mm<sup>2</sup>. Lynch is completely and utterly silent as to the bond strength of its door skin. Nowhere does Lynch state or intimate that the bond strength of the door skins is a concern or inadequate. Nor has the Examiner pointed to a secondary reference which states or intimates the importance of increasing bond strength over that attained by conventional processes. Moreover, it is relevant to note that Lynch focuses on molded core components, and discusses door skins in the background section only, and only in regards to the relationship of door skins to molded core components.

Applicant respectfully submits that a design choice cannot be obvious, absent hindsight, unless the prior art provides some motivation for making the design change. *See, e.g., parte Chicago Rawhide Mfg. Co.*, 223 USPQ 351, 353 (Bd. Pat. App. & Inter.

1984) The applied art, i.e., Lynch, does not meet this minimum standard to support an obviousness rejection.

The Examiner has alleged that the requisite motivation for providing the claimed bond strength for the door skin is to prevent “the skins from separating from the frame.” The bond strength recited in the claims does not refer to bond strength between door skin and door frame, but to the intrinsic property of the skin itself. The Examiner’s attention is directed to page 10, lines 4-15 and page 22, lines 13-15 of the specification, which discuss the breakage of internal resin bonds during pressing of molded parts. Applicant’s specification details process steps for reforming the bonds stronger than were originally evident. Hence, the motivation alleged by the Examiner of improving skin-to-frame bond strength would not have suggested the claimed limitation.

The applied art does not definitively teach how to go about increasing the bond strength of the door skins to the claimed levels. The Examiner alleges at page 5 of the Office Action that “one having an ordinary skill in the art would obviously made a stronger bonding ... by providing a stronger bonding material to achieve a desired result.” Applicant respectfully submits that the Examiner has not demonstrated what, if any, theoretical bonding material would have achieved the claimed bonding strength and worked for its intended purpose in a door skin. Applicant further respectfully submits that the Examiner does not point to any proof in the art which verifies that bond strength can be increased to the claimed levels simply by substituting a different bonding agent into a conventional process. Essentially, the Examiner points to a desired result, but not to any means in the prior art for attaining the result. As explained above, Applicant achieves the claimed bond strength by practicing a series of process steps to a solid wood

composite door blank which has previously been subject to a compression stage. These process steps are not suggested by the applied art.

The Examiner repeatedly makes reference to Applicant's alleged failure to show criticality for specifically claimed bond strength. Applicant respectfully disagrees, and directs the Examiner's attention to page 10, lines 4-15 of the specification. The increase in bond strength to the claimed levels is attained by a process which repairs "the stretched or broken bonds, created when deforming the boards ... and eventually reforms bonds stronger than were originally evident." Additionally, Applicant respectfully submits that criticality is not a prerequisite of patentability, especially where the Examiner has not established a *prima facie* case of obviousness.

For these reasons, Applicant respectfully submits that the Section 103(a) rejection of independent claim 18 is misplaced and should be withdrawn.

Applicant further respectfully submits that claims 19, 20 and 25-28, which depend from claim 18 and include all of the distinguishing features thereof, are patentable for the above-discussed reasons and for the following additional reasons.

In regards to claims 20 and 25, the Examiner alleges that column 2, lines 16-18 of Lynch teach skins that are pressed into a mat and then transferred to a press to form a wood composite. Applicant respectfully submits that the cited passage of Lynch merely involves the lowering of water content as part of a conventional wet process for forming mats. The resulting wet mat of this conventional process is not a solid wood composite flat blank that has already been pressed into its flat-skin shape.

For these reasons, Applicant respectfully requests reconsideration and withdrawal of the Section 103(a) rejection of claim 18-20 and 25-28.

Claims 23, 24, 30, and 31 have been rejected under Section 103(a) as being unpatentable over Lynch in view of U.S. Patent No. 5,219,634 to Aufderhaar.

Applicant respectfully traverses this rejection.

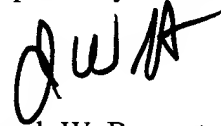
Applicant submits that claims 23, 24, 30, and 31 all depend from amended claim 18 and are therefore also allowable for the reasons set forth above. The deficiencies of Lynch are explained above. Aufderhaar, which has been cited for its disclosure of an overlaid laminate, does not overcome Lynch's deficiencies.

For these reasons, Applicant respectfully requests reconsideration and withdrawal of the Section 103(a) rejection of claim 23, 24, 30, and 31.

Finally, new claims 32-39 recite or incorporate by dependency the same bond strength limitation recited in claim 18, and therefore are patentable over Lynch and Aufderhaar for the reasons advanced above.

Accordingly, Applicant submits that all claims are now in condition for allowance, and earnestly solicits same. It is believed that no extension or fees are due with this submission. Should that determination be incorrect, then please accept this paper as a petition for extension, debit Account No. 50-0548 for any missing or deficient fees (including extra claim fees), and notify the undersigned.

Respectfully submitted,



Joseph W. Berenato, III.  
Registration No. 30,546  
Attorney for Applicant

**Berenato, White & Stavish, LLC**  
6550 Rock Spring Drive, Suite 240  
Bethesda, Maryland 20817  
Telephone: (301) 896-0600  
Facsimile: (301) 896-0607